

Title (en)
DATA TRANSMISSION SYSTEM

Publication
EP 0228771 A3 19881019 (EN)

Application
EP 86307780 A 19861008

Priority
GB 8526610 A 19851120

Abstract (en)
[origin: US4878232A] In a data transmission system data is sent, after suitable conversion, as a ternary analogue type signal. Using two-wire twisted pairs and hybrids, echo cancellation and feedback equalization are needed. Synchronization between the two ends, e.g. of a 144 Kb/sec. subscriber's loop, is maintained by a low amplitude pilot tone sent with the data, which is detected at the same time as the data is detected. Detection and elimination of this pilot tone use coefficient generation circuitry similar to those used in the equalizer and echo canceller. To reduce the effect of time phase steps on the system performance, in addition to the transmission of a specific zero valued frame synchronization word which immediately precedes the phase step, the incoming synchronization word is also aligned to this time so that the value of a symbol as received can be predicted, as for a synchronization word, the predicted value is given preference if there is a difference between that symbol's value as received and its predicted value. In addition, the location of the high-pass filters used in the system are specified, alternative methods of bit timing control are specified and advantageous realizations of the canceller and equalizer using tap interpolation are disclosed.

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H04B 3/23; **H04L 7/06**

IPC 8 full level
H04B 3/10 (2006.01); **H04B 3/20** (2006.01); **H04B 3/23** (2006.01); **H04L 7/06** (2006.01); **H04L 7/08** (2006.01); **H04L 7/04** (2006.01)

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H04B 3/235 (2013.01 - EP US); **H04L 7/08** (2013.01 - EP US); **H04B 3/238** (2013.01 - EP US); **H04L 2007/047** (2013.01 - EP US)

Citation (search report)
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• [AD] WO 8301876 A1 19830526 - INT STANDARD ELECTRIC CORP [US]
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• [A] IEEE JOURNAL OF SOLID-STATE CIRCUITS, vol. SC-20, no. 3, June 1985, pages 671-678, IEEE, New York, US; J.B. HUGHES et al.: A receiver IC for a 1 + 1 digital subscriber loop"

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Designated contracting state (EPC)
AT BE CH DE ES FR IT LI NL SE

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